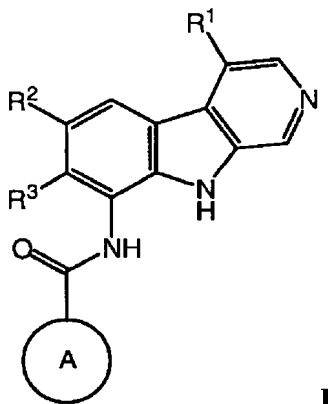


Practitioner's Docket No. MPI03-043P1RNMRECEIVED  
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OCT 29 2007

In the Claims:

1. (Currently Amended) A compound of formula I:



or a pharmaceutically acceptable salt thereof, wherein:

Ring A is ~~selected from the group consisting of:~~(a) ~~a pyridinyl or pyrimidinyl ring that is substituted by (i)  $\text{CH}_2\text{C}(\text{O})\text{G}$  and 0-1  $\text{R}^{6a}$  or (ii) 1-2  $\text{R}^{6a}$ , and~~(b) ~~a morpholinyl, piperidinyl, piperazinyl, pyrrolidinyl, pyranal, tetrahydrofuranyl, cyclohexyl, cyclopentyl or thiomorpholinyl ring that is substituted by (i)  $-\text{C}(\text{R}^9)_3$ ,  $-\text{W}-\text{G}$ , or  $-\text{G}$ , (ii) 0-4  $\text{R}^{6b}$  and (iii) 0-1 oxo groups on a ring carbon or 0-2 oxo groups on a ring sulfur;~~each  $\text{R}^{6a}$  is independently selected from  $\text{C}_{1-6}$  aliphatic, halo, alkoxy, or amino;each  $\text{R}^{6b}$  is independently selected from  $\text{C}_{1-3}$  aliphatic or  $-\text{N}(\text{R}^7)_2$ , and two  $\text{R}^{6b}$  on the same or an adjacent carbon optionally are taken together with the intervening carbon(s) to form a 5-6 membered ring having 1-2 ring heteroatoms selected from N, O or S;W is  $-\text{Q}-$ ,  $-\text{Q}-\text{C}(\text{O})-$ ,  $-\text{C}(\text{R}^9)_2-\text{C}(\text{R}^9)(\text{R}^{12})-$ , or  $-\text{C}(\text{R}^9)_2-[\text{C}(\text{R}^9)(\text{R}^{12})]_2-$ ;Q is  $-\text{C}(\text{R}^9)_2-$  or  $-\text{C}(\text{R}^9)_2\text{C}(\text{R}^9)_2-$ ;G is  $-\text{OH}$ ,  $-\text{NR}^4\text{R}^5$ ,  $-\text{N}(\text{R}^9)\text{CONR}^4\text{R}^5$ ,  $-\text{N}(\text{R}^9)\text{SO}_2(\text{C}_{1-3} \text{ aliphatic})$ ,  $-\text{N}(\text{R}^9)\text{COCF}_3$ ,  $-\text{N}(\text{R}^9)\text{CO}(\text{C}_{1-6} \text{ aliphatic})$ ,  $-\text{N}(\text{R}^9)\text{CO}(\text{heterocyclyl})$ ,  $-\text{N}(\text{R}^9)\text{CO}(\text{heteroaryl})$ ,  $-\text{N}(\text{R}^9)\text{CO}(\text{aryl})$ , a 3-7 membered heterocyclyl ring, or a 5-6 membered heteroaryl, wherein each of the heteroaryl, aryl and heterocyclyl moieties of G is optionally substituted by 1-3  $\text{R}^{10}$ ; $\text{R}^1$  is hydrogen, halo,  $\text{C}_{1-3}$  aliphatic, amino, cyano,  $(\text{C}_{1-3} \text{ alkyl})_{1-2}$  amino,  $\text{C}_{1-3}$  alkoxy,  $-\text{CONH}_2$ ,  $-\text{NHCOCF}_3$ , or  $-\text{CH}_2\text{NH}_2$ ;

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R<sup>2</sup> is hydrogen, halo, C<sub>1-3</sub> aliphatic, -CF<sub>3</sub>;

R<sup>3</sup> is hydrogen, halo, C<sub>1-6</sub> aliphatic, C<sub>1-6</sub> haloalkyl, C<sub>1-6</sub> alkoxy, hydroxy, amino, cyano, or (C<sub>1-6</sub> alkyl)<sub>1,2</sub> amino;

R<sup>4</sup> is hydrogen, 3-7 membered heterocyclyl, or C<sub>1-6</sub> aliphatic;

R<sup>5</sup> is hydrogen, C<sub>1-6</sub> aliphatic group or a 3-7 membered heterocyclic ring having 1-2 ring heteroatoms selected from N, O, or S, wherein R<sup>5</sup> is optionally substituted by halo, -OR<sup>7</sup>, -CN, -SR<sup>8</sup>, -S(O)<sub>2</sub>R<sup>8</sup>, -S(O)<sub>2</sub>N(R<sup>7</sup>)<sub>2</sub>, -C(O)R<sup>7</sup>, -CO<sub>2</sub>R<sup>7</sup>, -N(R<sup>7</sup>)<sub>2</sub>, -C(O)N(R<sup>7</sup>)<sub>2</sub>, -N(R<sup>7</sup>)C(O)R<sup>7</sup>, -N(R<sup>7</sup>)CO<sub>2</sub>R<sup>8</sup>, or -N(R<sup>7</sup>)C(O)N(R<sup>7</sup>)<sub>2</sub>;

each R<sup>7</sup> is independently selected from hydrogen or C<sub>1-4</sub> aliphatic, or two R<sup>7</sup> on the same nitrogen atom are taken together with the nitrogen to form a 5-6 membered heteroaryl or heterocyclyl ring;

each R<sup>8</sup> is independently selected from C<sub>1-4</sub> aliphatic;

each R<sup>9</sup> is independently selected from hydrogen or C<sub>1-3</sub> aliphatic;

each R<sup>10</sup> is independently selected from oxo, -R<sup>11</sup>, -T-R<sup>11</sup>, or -V-T-R<sup>11</sup>;

each R<sup>11</sup> is independently selected from C<sub>1-6</sub> aliphatic, halo, -S(O)<sub>2</sub>N(R<sup>7</sup>)<sub>2</sub>, -OR<sup>7</sup>, -CN, -SR<sup>8</sup>, -S(O)<sub>2</sub>R<sup>8</sup>, -C(O)R<sup>7</sup>, -CO<sub>2</sub>R<sup>7</sup>, -N(R<sup>7</sup>)<sub>2</sub>, -C(O)N(R<sup>7</sup>)<sub>2</sub>, -N(R<sup>7</sup>)C(O)R<sup>7</sup>, -N(R<sup>7</sup>)CO<sub>2</sub>R<sup>7</sup>, or -N(R<sup>7</sup>)C(O)N(R<sup>7</sup>)<sub>2</sub>;

T is a straight or branched C<sub>1-4</sub> alkylene chain;

V is -O-, -N(R<sup>7</sup>)-, -S-, -S(O)-, -S(O)<sub>2</sub>-, -C(O)-, or -CO<sub>2</sub>-; and

R<sup>12</sup> is hydrogen, C<sub>1-6</sub> aliphatic, substituted or unsubstituted phenyl, substituted or unsubstituted benzyl, or an amino acid side chain.

Claims 2-8. (Canceled)

9. (Currently Amended) The compound of claim 1 where the -W-G or -C(R<sup>9</sup>)<sub>3</sub> substituent on Ring A is ortho to the position where the beta-carboline portion is attached.

Claims 10-16. (Canceled)

17. (Original) A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.

18. (Canceled)

19. (Withdrawn) A method of treating an IKK-mediated disease comprising administering to a patient in need of such treatment a therapeutically effective amount of a compound of claim 1.

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20. (Withdrawn) The method of claim 19 wherein the disease is an inflammatory disease or an immune-related disease.

21. (Withdrawn) The method of claim 19 wherein the disease is selected from the group consisting of rheumatoid arthritis, asthma, psoriasis, psoriatic arthritis, chronic obstructive pulmonary disease, inflammatory bowel disease or multiple sclerosis.

22. (Withdrawn) The method of claim 19 wherein the disease is cancer.

23. (Withdrawn) The method of claim 22 wherein the cancer is selected from lymphoma, multiple myeloma, osteolytic bone metastasis, head or neck cancer, lung cancer, prostate cancer or pancreatic cancer.

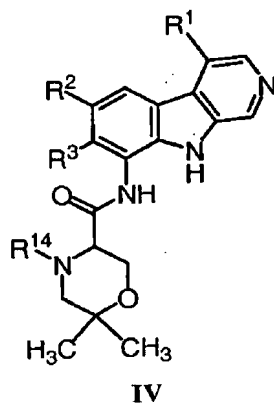
24. (Withdrawn) The method of claim 23 wherein the cancer is a lymphoma.

25. (Withdrawn) A method of inhibiting IKK in a patient in need thereof comprising administering to the patient a compound of claim 1.

Claim 26 (Canceled).

Claim 27 (Canceled).

28. (Original) A compound of formula IV:



where R<sup>14</sup> is an amino protecting group or hydrogen;

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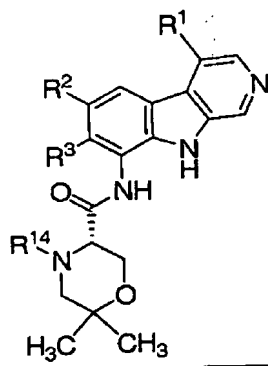
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$R^1$  is hydrogen, halo,  $C_{1-3}$  aliphatic, amino, cyano,  $(C_{1-3} \text{ alkyl})_{1-2}$  amino,  $C_{1-3}$  alkoxy,  $-\text{CONH}_2$ ,  $-\text{NHCOCF}_3$ , or  $-\text{CH}_2\text{NH}_2$ ;

$R^2$  is hydrogen, halo,  $C_{1-3}$  aliphatic,  $-\text{CF}_3$ ; and

$R^3$  is hydrogen, halo,  $C_{1-6}$  aliphatic,  $C_{1-6}$  haloalkyl,  $C_{1-6}$  alkoxy, hydroxy, amino, cyano, or  $(C_{1-6} \text{ alkyl})_{1-2}$  amino.

29. (Currently Amended) The compound of claim 28 ~~that is~~, wherein the compound is represented by formula (S)-IV:



30. (Withdrawn) A method of treating an inflammatory disease or an immune-related disease comprising administering to a patient in need of such treatment a therapeutically effective amount of a compound of claim 1.

31. (Withdrawn) The method of claim 30 wherein the disease is selected from rheumatoid arthritis, asthma, psoriasis, psoriatic arthritis, chronic obstructive pulmonary disease, inflammatory bowel disease or multiple sclerosis.

32. (Withdrawn) A method of treating cancer comprising administering to a patient in need of such treatment a therapeutically effective amount of a compound of claim 1.

33. (Withdrawn) The method of claim 32 wherein the cancer is selected from lymphoma, multiple myeloma, osteolytic bone metastasis, head or neck cancer, lung cancer, prostate cancer or pancreatic cancer.

34. (Withdrawn) The method of claim 33 wherein the cancer is a lymphoma.